ABSTRACT

Apparatus for monitoring movement of a person's eye, e.g., to monitor drowsiness. The system includes a frame that is worn on a person's head, an array of emitters on the frame for directing light towards the person's eye, and an array of sensors on the frame for detecting light from the array of emitters. The sensors detect light that is reflected off of respective portions of the eye or its eyelid, thereby producing output signals indicating when the respective portions of the eye is covered by the eyelid. The emitters project a reference frame towards the eye, and a camera on the frame monitors movement of the eye relative to the reference frame. This movement may be correlated with the signals from the array of sensors and/or with signals from other sensors on the frame to monitor the person's level of drowsiness.